In the Claims:

1. (Previously presented) A stent delivery system comprising:

a catheter, the catheter having a catheter shaft, the catheter shaft having a balloon mounted thereto;

a stent, the stent disposed about at least a portion of the balloon, the stent having an unexpanded state and an expanded state;

at least one sleeve, the at least one sleeve having a first portion and a second portion, the first portion being engaged to at least a portion of the catheter shaft adjacent to the stent, the second portion at least partially overlaying an end of the stent when the stent is in the unexpanded state;

at least one membrane, at least a portion of the membrane disposed beneath at least a portion of the at least one sleeve, the at least one membrane disposed about at least a portion of the stent, the at least one membrane constructed and arranged to prevent the at least a portion of the stent from flaring outward during advancement of the catheter through a vessel.

2. (Original) The stent delivery system of claim 1 wherein the at least one sleeve further comprises a first sleeve and a second sleeve, the stent further comprising a first end and a second end, the second portion of the first sleeve at least partially overlapping the first end of the stent, and the second portion of the second sleeve at least partially overlapping the second end of the stent.

3. (Original) The stent delivery system of claim 2 wherein the at least one membrane is disposed about at least a portion of the stent positioned between the second portion of the first sleeve and the second portion of the second sleeve.

4. (Original) The stent delivery system of claim 2 wherein the at least one membrane is a plurality of membranes spaced apart axially along the stent.

5. (Previously presented) The stent delivery system of claim 2 wherein the second portion of the first sleeve and the second portion of the second sleeve respectively overlying at least a portion of the at least one membrane and an end of the stent.

6. (Cancelled) The stent delivery system of claim 1 wherein the at least one membrane is further constructed and arranged to be retracted off of the stent.

7. (Currently amended) The stent delivery system of claim 1 wherein the at least one membrane ~~if~~ is further constructed and arranged to expand with the stent from the unexpanded state to the expanded state.

8. (Original) The stent delivery system of claim 7 wherein the at least one membrane is water soluble.

9. (Previously presented) A stent delivery system comprising:

a catheter, the catheter having a catheter shaft, the catheter shaft having a balloon mounted thereto;

a stent, the stent disposed about at least a portion of the balloon, the stent having an unexpanded state and an expanded state;

at least one sleeve, the at least one sleeve having a first portion and a second portion, the first portion being engaged to at least a portion of the catheter shaft adjacent to the stent, the second portion at least partially overlaying an end of the stent when the stent is in the unexpanded state;

at least one membrane, the at least one membrane disposed about at least a portion of the stent, the at least one membrane constructed and arranged to prevent the at least a portion of the stent from flaring outward during advancement of the catheter through a vessel;

wherein the at least one membrane is a thermoplastic elastomer.

10. (Previously presented) A stent delivery system comprising:

a catheter, the catheter having a catheter shaft, the catheter shaft having a balloon

mounted thereto;

a stent, the stent disposed about at least a portion of the balloon, the stent having an unexpanded state and an expanded state;

at least one sleeve, the at least one sleeve having a first portion and a second portion, the first portion being engaged to at least a portion of the catheter shaft adjacent to the stent, the second portion at least partially overlaying an end of the stent when the stent is in the unexpanded state;

at least one membrane, the at least one membrane disposed about at least a portion of the stent, the at least one membrane constructed and arranged to prevent the at least a portion of the stent from flaring outward during advancement of the catheter through a vessel;

wherein the at least one membrane is manufactured from at least one material selected from the group consisting of KRATON, polystyrene, polyurethanes and any combinations thereof.

11. (Original) The stent delivery system of claim 10 where in the at least one membrane is additionally manufactured from at least one material of the group consisting of polytetrafluoroethylene, siloxane, and any combinations thereof.

12. (Previously presented) A stent delivery system comprising:

a catheter, the catheter having a catheter shaft, the catheter shaft having a balloon mounted thereto;

a stent, the stent disposed about at least a portion of the balloon, the stent having an unexpanded state and an expanded state;

at least one sleeve, the at least one sleeve having a first portion and a second portion, the first portion being engaged to at least a portion of the catheter shaft adjacent to the stent, the second portion at least partially overlaying an end of the stent when the stent is in the unexpanded state;

at least one membrane, the at least one membrane disposed about at least a portion of the stent, the at least one membrane constructed and arranged to prevent the at least a portion of the stent from flaring outward during advancement of the catheter through a vessel;

wherein the at least one membrane is a drug delivery device.

13. (Original) The stent delivery system of claim 1 wherein the at least one membrane has a predetermined membrane thickness and the at least one sleeve has a predetermined sleeve thickness, the predetermined membrane thickness being less than or equal to the predetermined sleeve thickness.

14. (Previously presented) A stent delivery system comprising:

a catheter, the catheter having a catheter shaft, the catheter shaft having a balloon mounted thereto;

a stent, the stent disposed about at least a portion of the balloon, the stent having an unexpanded state and an expanded state;

at least one sleeve, the at least one sleeve having a first portion and a second portion, the first portion being engaged to at least a portion of the catheter shaft adjacent to the stent, the second portion at least partially overlaying an end of the stent when the stent is in the unexpanded state;

at least one membrane, the at least one membrane disposed about at least a portion of the stent, the at least one membrane constructed and arranged to prevent the at least a portion of the stent from flaring outward during advancement of the catheter through a vessel;

wherein the at least one membrane has a predetermined membrane thickness and the at least one sleeve has a predetermined sleeve thickness, the predetermined membrane thickness being less than or equal to the predetermined sleeve thickness;

wherein the predetermined membrane thickness is less than 0.005 inches thick.

15. (Original) The stent delivery device of claim 14 wherein the predetermined membrane thickness is between about 0.004 and about 0.002 inches thick.

16. (New) A stent delivery system comprising:

a catheter, the catheter having a catheter shaft, the catheter shaft having a balloon mounted thereto;

a stent, the stent disposed about at least a portion of the balloon, the stent having an unexpanded state and an expanded state;

at least one sleeve, the at least one sleeve having a first portion and a second portion, the first portion being engaged to at least a portion of the catheter shaft adjacent to the stent, the second portion at least partially overlaying an end of the stent when the stent is in the unexpanded state;

at least one membrane, at least a portion of the membrane disposed beneath at least a portion of the at least one sleeve, the at least one membrane disposed about at least a portion of the stent, the at least one membrane constructed and arranged to prevent the at least a portion of the stent from flaring outward during advancement of the catheter through a vessel;

wherein the at least one sleeve further comprises a first sleeve and a second sleeve, the stent further comprising a first end and a second end, the second portion of the first sleeve at least partially overlapping the first end of the stent, and the second portion of the second sleeve at least partially overlapping the second end of the stent; and

wherein the at least one membrane is a plurality of membranes spaced apart axially along the stent.